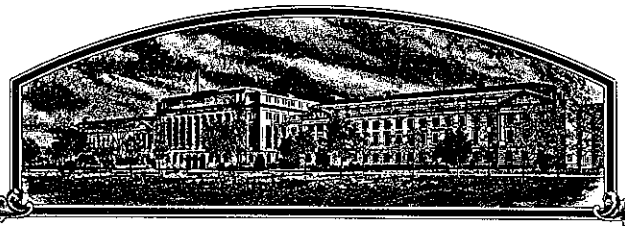
No. 8300021



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Koninklijk Kweekbedrijf en Zaadhandel
D. J. van der Have B. V.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

Chewings Red Fescue

'Magenta'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington *this* 28th *day of* September *in the year of our Lord one thousand nine hundred and* eighty-four.

Attest:

Kenneth A. Kirk
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

John R Block
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

FORM APPROVED: OMB NO.0581-0055

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1. NAME OF APPLICANT(S)
Koninklijk Kweekbedrijf en Zaadhandel
D.J. van der Have B.V.

2. TEMPORARY DESIGNATION
HF 30

3. VARIETY NAME
M A G E N T A

4. ADDRESS *(Street and No. or R.F.D. No., City, State, and Zip Code)*
P.O. Box 1
4420 AA Kapelle - Netherlands

5. PHONE *(Include area code)*
1135-1254

FOR OFFICIAL USE ONLY

PVPO NUMBER
8300021

6. GENUS AND SPECIES NAME
Festuca rubra var. commutata

7. FAMILY NAME *(Botanical)*
-

FILING
DATE
12/16/82
TIME
11:30 [xx] A.M. [ ] P.M.

8. KIND NAME
Chewings red fescue

9. DATE OF DETERMINATION
1976

FEES RECEIVED
AMOUNT FOR FILING
$ 1,000
DATE
12/16/82
AMOUNT FOR CERTIFICATE
$ 500.00
DATE
7/25/84

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*
Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
the Netherlands.

12. DATE OF INCORPORATION
8th March 1973

13. NAME AND ADDRESS OF APPLICANT REPRESENATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
Mr. Stan Röllin
6802 Orem Drive
Laurel Maryland 20707

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

a. [X] Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
b. [X] Exhibit B, Novelty Statement
c. [X] Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*
d. [X] Exhibit D, Additional Description of the Variety

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act.)*
[ ] Yes *(If "Yes," answer items 16 and 17 below)* [X] No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
[■] Yes [ ] No

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
[ ] Foundation [ ] Registered [■] Certified

18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S. OR OTHER COUNTRIES?
Netherlands 78-11-16
[X] Yes *(If "Yes," give names of countries and dates)*
[ ] No

19. HAVE RIGHTS BEEN GRANTED IN THE U.S. OR OTHER COUNTRIES?
Netherlands 82-10-6
[X] Yes *(If "Yes," give names of countries and dates)*
[ ] No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT
Ir. D.J. Glas
DATE
1982-11-8

SIGNATURE OF APPLICANT
DATE

8300021

Exhibit A. Origin and Breeding History of the Variety.

In 1969 seed of red fescue plants was collected in Limburg (south-east of the Netherlands). About 100 ecotypes were collected.

Plants were raised from this seed and planted as spaced plants. Experimental varieties were developed out of this material by putting together attractive and matching plants.

Syn-1 seed of the experimental varieties was produced in 1972. The experimental varieties were tested in various turf trials and in a seed yield trial. HF 30 emerged as a variety with a good turf quality and a high seed productivity.

In view of the favourable characteristics of HF 30 it was decided to multiply the variety further: Syn-2 seed was harvested in 1974.

Syn-1 and Syn-2 seed of HF 30 were compared as spaced plants in 1975 and 1976. No genetic shift had occurred during multiplication. No variants were observed in 2 generations of reproduction and the variety proved to be stable during 2 generations of reproduction.

In 1976 it was decided to produce enough breeder's seed of the anticipated need of the next 10 years and to release HF 30 under the varietal name Magenta.

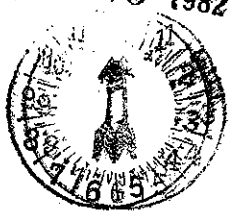


Exhibit B. Novelty Statement.

Magenta most closely resembles Highlight and Jamestown, but differs from it in the following characteristics: SR 12/14/82

- Maturity
  Magenta is 9 days later than Highlight. This difference was significant at P=0.01 in 1980, 1981 and 1982.

- Width of flag leaf.
  The width of the flag leaf of Magenta was 0.5 mm wider than that of Highlight. This difference was significant at P = 0.01 in 1980, 1981 and 1982.

- Length of flag leaf.
  The length of the flag leaf of Magenta was 10 mm longer than that of Highlight. This difference was significant at P = 0.01 in 1980.

- Plant height.
  The plant height of Magenta was 16 cm taller than that of Highlight. This difference was significant at P = 0.01 in 1980, 1981 and 1982.

- Length of panicle.
  The length of the panicle of Magenta was 22 mm longer than that of Highlight. This difference was significant in 1980, 1981 and 1982.

- Length of upper internode.
  The length of the upper internode of Magenta was 7 cm longer than that of Highlight. This difference was significant in 1980, 1981 and 1982.

Magenta ~~most closely resembles Jamestown but~~ differs from Jamestown in the following characteristics: SR 12/14/82

- Length of upper internode.
  The length of the upper internode of Magenta was 8 cm longer than that of Jamestown. This difference was significant in 1980, 1981 and 1982.

Statistical data.
Data provided by RIVRO/Wageningen. Measured on 60 new plants each year.
Maturity (number of days after of 31st March).

Year	Replicate	Magenta	Highlight	Jamestown	LSD 0.01
1980	I	42	33	44	
	II	42	32	45	
	III	42	29	43	
	mean	42	31	44	2.5
1981	I	40	31	40	
	II	39	29	41	
	III	39	28	41	
	mean	39	29	41	3.0
1982	I	42	38	45	
	II	44	38	47	
	III	43	36	46	
	mean	43	37	46	3.4

FORM APPROVED: OMB NO. 0581-0055

EXHIBIT C
(Fine Leaved Fescues)

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY
FINE LEAVED FESCUES
(Festuca spp.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Koninklijk Kweekbedrijf D.J. van der HAVE B.V.	HF 30	Magenta

ADDRESS *(Street and No. or R.F.D. No., City, State, and Zip Code)*
P.O. Box 1
4420 AA Kapelle. Netherlands

FOR OFFICIAL USE ONLY
PVPO NUMBER 8300021

Place the appropriate number that describes the varietal character of this variety in the boxes below. Use leading zeroes when necessary (e.g., [0][8][9] or [0][9]). Characteristics described including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors; designate system used: RIVRO System

Describe location of test area, conditions and number of plants used: Netherlands, 60 plants each year during 3 consecutive years.

1. SPECIES: (With comparison varieties for use below - use varieties within species of application variety)

[1]

1 = *F. rubra ssp. commutata* (Chewings)
2 = *F. rubra* ssp. *litoralis* (Creeping Red)
3 = *F. rubra* ssp. *rubra* (Spreading Red)
4 = *F. ovina* (Sheep)
5 = *F. longifolia* (Hard)
6 = *F. tenuifolia* (Fine-Leaved Sheep)
7 = Other *(Specify)* *F.* _____

11 = Cascade, 14 = Banner, 12 = Highlight, 15 = Barfalla, 13 = Jamestown
21 = Dawson, 24 = Pennlawn, 22 = Starlight, 23 = Merlin
31 = Boreal, 34 = Ensylva, 32 = Ruby, 33 = Fortress
41 = Covar
51 = Durar, 52 = Biljart (C-26), 53 = Scaldis
61 = Panda, 62 = Barok

2. CYTOLOGY:

[4][2] Chromosome Number [3] Ploidy (1 = diploid, 2 = tetraploid, 3 = hexaploid, 4 = octoploid)

3. ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted)

[2] Northeast [2] Southeast [2] North Central [2] Pacific N.W. [ ] Other *(Specify)* _____

4. MATURITY: Date First Headed (panicle emergence) Location(s) of Trail(s) _____

[5]

Maturity Class:
1 = Very Early (Covar)
2 = Early (Highlight)
3 = Medium Early (Boreal, Dawson)
4 = Medium Late (Cascade, Ruby)
5 = Late (Jamestown, Agram)
6 = Very Late

Date Headed _____

[ ][3]	Days earlier than	[1][3]	Comparison Variety
	Maturity same as	[ ][ ]	
[ ][9]	Days later than	[1][2]	

5. PLANT HEIGHT: (At maturity; to top of panicle; Average of 10 tallest culms)

[9][2][0]	mm height		
[ ][ ][ ]	mm shorter than	[ ][ ]	Comparison Variety
	Height same as	[ ][ ]	
[1][6][0]	mm taller than	[1][2]	

6. GROWTH HABIT: (Mature)

[2] 1 = Erect (Ruby) 2 = Semi-erect (Highlight) 3 = Prostrate (Silvana)

7. RHIZOMES:

[ ][ ][ ] mm Length [ ][ ] mm Width [ ][ ] mm Internode length

[1] 1 = Absent (Highlight) 2 = Weakly Creeping (Dawson) 3 = Strongly Creeping (Boreal) 4 = Very Strongly Creeping (Fortress)

8. LEAF BLADE:

[4] Color: 1 = Light Green (Starlight) 2 = Medium Light Green (Highlight) 3 = Medium Dark Green (Ruby, Agram) 4 = Dark Green (Jamestown, Manoir) 5 = Bluegreen (Saphir) 6 = Graygreen (Scaldis) 7 = Other *(Specify)* _____

[1] Glaucosity (Sowing Year): 1 = Absent (Koket) 2 = Present (Vendome)

[ ] Anthocyanin: 1 = Absent 2 = Present [ ] Hairs (Basal) 1 = Absent 2 = Present

[ ] Margins: 1 = Smooth 2 = Semi-rough 3 = Rough

[1] Margin folding (closure): 1 = Rolled inward (closed-Highlight) 2 = Flat (open-Jamestown, Engina)

[2] Width class: 1 = Very Fine (Agram, Frida) 2 = Fine (Jamestown, Highlight, Banner, Dawson) 3 = Medium Fine (Fortress, Ruby, Scaldis) 4 = Medium Coarse (Engina)

[1][0][1] mm Length (flag leaf)

[ ][5] mm Shorter than . . . . . [1][3]

Blade length same as . . . . . [ ][ ] } Comparison Variety

[1][0] mm Longer than . . . . . [1][2]

[2][1][ ] mm Width (flag leaf)

[0][1][ ] mm Narrower than . . . . . [1][3]

Blade width same as . . . . . [ ][ ] } Comparison Variety

[0][5][ ] mm Wider than . . . . . [1][2]

9. LEAF SHEATH:

[2] Anthocyanin (seedling): 1 = Absent (Highlight) 2 = Present (Jamestown, Fortress, Marga)

[ ] Auricle Hairiness: 1 = Absent 2 = Present

[ ] Margins: 1 = Open (Highlight) 2 = Closed (Jamestown)

10. PANICLE (Mature plant):

[ ] Shape: 1 = Narrow-tapering 2 = Ovate 3 = Oblong 4 = Other *(Specify)* _____

[ ] Type: 1 = Open 2 = Intermediate 3 = Compact

[ ] Orientation: 1 = Erect 2 = Nodding

[ ] Branch Pubescence: 1 = Glabrous 2 = Pubescent

[ ] Anther Color:

[ ] Glume Color (At 50% flowering): } 1 = Yellowish Green 2 = Green 3 = Bluish Green 4 = Purplish 5 = Reddish 6 = Other *(Specify)* _____

[1][1][5] mm Length

[ ][2] mm Shorter than . . . . . [1][3]

Panicle length same as . . . . . [ ][ ] } Comparison Variety

[2][2] mm Longer than . . . . . [1][2]

11. PALEA:

[ ] Hairs (On keels or margins): 1 = Absent (Banner) 2 = Short (Agram, Scaldis, Olds) 3 = Long (Rainier, Fortress, Jamestown)

8

12. LEMMA (Mature):

Value	Characteristic	Comparison value	
[ ]	Hairs: 1 = Absent (Jamestown) 2 = Several 3 = Many (Highlight)		
4.5	mm Lemma Length		
0.7	mm Shorter than	13	Comparison Variety
	Lemma length same as	[ ]	Comparison Variety
[ ]	mm Longer than	[ ]	Comparison Variety
1.10	mm Lemma Width		
[ ]	mm Narrower than	[ ]	Comparison Variety
	Lemma width same as	[ ]	Comparison Variety
0.14	mm Wider than	12	Comparison Variety
2	Awns: 1 = Absent 2 = Present		
2.0	mm Awn Length		
0.6	mm Shorter than	13	Comparison Variety
	Awn length same as	[ ]	Comparison Variety
[ ]	mm Longer than	[ ]	Comparison Variety

13. SEED (With lemma & palea):

Value	Characteristic	Comparison value	
2	Size Class (g/1000 seed): 1 = < .9g (Biljart, Dawson); 2 = .9 – < 1.1g (Jamestown, Highlight); 3 = 1.1 – 1.3g (Fortress, Novorubra); 4 = > 1.3g (Boreal, Golfrood)		
1030	mg per 1000 seed		
[ ]	mg per 1000 seed less than	[ ]	Comparison Variety
	Seed Weight same as	[ ]	Comparison Variety
130	mg per 1000 more than	13	Comparison Variety

14. DISEASE, INSECT, AND NEMATODE REACTION (0 = Not Tested, 1 = Susceptible, 2 = Resistant):

Value	Reaction
0	Melting-out *Drechslera poae (Helminthosporium vagans)*
0	Leaf spot *D. siccans*
0	Net blotch *D. dictyoides*
0	Leaf spot *Bipolaris sorokiniana*
0	Brown patch *Rhizoctonia solani*
2	Powdery mildew *Erysiphe graminis*
0	Stripe smut *Ustilago striiformis*
2	F. Patch, Pink snow-mold *Fusarium nivale*
0	Fusarium blight *F. tricinctum, F. roseum*
0	Gray snow mold *Typhula iotana*
0	Stem rust *Puccinia graminis*
0	Stripe rust *P. striiformis*
0	Leaf rust *P. poae-nemoralis*
0	*P. crandallii*
0	Pythium Blight *Pythium ultimum*
2	Red thread *Corticium fusciforme*
0	Dollar spot *Sclerotinia homoeocarpa*
0	Insect ____
0	Nematode ____
[ ]	Other ____
[ ]	Other ____
[ ]	Other ____

8300021

15. GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY. For the following characteristics indicate Degree of Resemblance by placing the column marked, D.R., one of the following numbers:

1 = Application variety is less than comparison variety. 2 = Same As
3 = More than, better, greater, darker, more disease resistant, etc.

CHARACTER	VARIETY	D.R.	CHARACTER	VARIETY	D.R.
Rhizome Length			Growth Habit	Jamestown	2
Leaf Width	Highlight	3	Leaf Color	Jamestown	2
Panicle Color			Panicle Shape		
Winter Color			Cold Injury		
Shade Tolerance			Heat		
Drought			Disease*		

* *Specify each disease evaluated.*

16. ADDITIONAL DESCRIPTION: (Use additional sheets as required)

Describe all characteristics that cannot be adequately described in the form above in Exhibit D. Comparative varieties should be used as may be appropriate, such as for disease. Append all comparative trial and evaluation data, including measured characters, environmental, and disease tests.

Plant height (cm)

8300021

Year	Replicate	Magenta	Highlight	Jamestown	LSD 0.01
1980	I	87	85	85	
	II	87	71	74	
	III	98	65	88	
	mean	90	73	82	10.2
1981	I	92	73	85	
	II	90	76	87	
	III	88	71	79	
	mean	90	73	84	5.3
1982	I	99	79	86	
	II	93	81	90	
	III	92	87	89	
	mean	95	82	88	5.7
Length of panicle (mm)					
1980	I	126	98	110	
	II	94	95	115	
	III	129	106	113	
	mean	116	100	113	13.9
1981	I	108	76	121	
	II	107	83	117	
	III	115	91	120	
	mean	110	83	120	10.6
1982	I	113	97	108	
	II	122	97	118	
	III	123	96	130	
	mean	120	97	119	12.1
Length of upper internode (cm)					
1980	I	45	45	38	
	II	42	34	35	
	III	52	35	38	
	mean	46	38	37	6.5
1981	I	52	41	42	
	II	50	45	41	
	III	49	42	43	
	mean	50	42	42	4.7
1982	I	52	42	42	
	II	52	44	43	
	III	52	50	46	
	mean	52	45	44	4.2

Width of flag leaf (mm)

Year	Replicate	Magenta	Highlight	Jamestown	LSD 0.01
1980	I	2.1	1.9	1.9	
	II	2.1	1.7	1.7	
	III	2.1	1.6	2.0	
	mean	2.1	1.7	1.8	0.23
1981	I	2.5	1.5	2.0	
	II	1.7	1.4	2.2	
	III	2.2	1.4	2.2	
	mean	2.1	1.4	2.2	0.48
1982	I	2.0	1.7	1.8	
	II	2.0	1.7	2.0	
	III	2.2	1.5	2.2	
	mean	2.1	1.6	2.0	0.21
Length of flag leaf (mm)					
1980	I	118	91	116	
	II	117	102	108	
	III	114	103	111	
	mean	116	99	112	13.9
1982	I	96	89	108	
	II	106	95	108	
	III	100	95	107	
	mean	100	93	108	15.0
1982	I	87	83	85	
	II	82	77	103	
	III	94	79	106	
	mean	87	80	98	11.8

Exhibit D. Additional Description of the Variety. 8300021

Number of panicles /m^2 (mean of 3 replicates).

	Seeding time I (81/7/6)	Seeding time II (81/7/20)	Seeding time III (81/8/15)	Mean
Magenta	6492	6052	3306	5283
Highlight	6333	5200	2400	4644

Magenta has a higher number of panicles per m^2 than Highlight. In spite of the late sowing of Seeding time III, Magenta still produces a high number of panicles. The juvenile stage of Magenta is shorter than that of Highlight.